

REMARKS

Applicant has considered the May 2, 2006 Office Action, and the amendments above together with the comments that follow are presented in a bona fide effort to address all issues raised in that Action and thereby place this case in condition for allowance. Claims 1-18 are pending in this application. Claims 1-14 have been withdrawn from consideration pursuant to the provisions of 37 C.F.R. § 1.142(b).

In response to the Office Action dated May 2, 2006, claim 15 has been amended. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed originally filed claims and disclosure, including page 18, lines 10-14 of the specification.

Claims 15, 17 and 18 were rejected under 35 U.S.C. § 102(e) as being anticipated over Terahara et al. (U.S. Pat. No. 6,721,481, hereinafter "Terahara"). Applicant respectfully traverses.

Claims 15-17 were rejected under 35 U.S.C. § 102(e) as being anticipated over Tanaka et al. (U.S. Pat. No. 6,535,677, hereinafter "Tanaka"). Applicant respectfully traverses.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the possession of one having ordinary skill in the art. *Helifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d 1339, 54 USPQ2d 1299 (Fed. Cir. 2000); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994). Moreover, in imposing the rejection under 35 U.S.C. § 102, the Examiner is required to specifically identify wherein an applied reference is perceived to identically disclose each feature of a claimed invention. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993);

*Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). That burden has not been discharged. Moreover, there are significant differences between the claimed invention and the system disclosed by Terahara or Tanaka that would preclude the factual determination that either reference identically describes the claimed invention within the meaning of 35 U.S.C. § 102.

Independent claim 15 has been amended to clarify that the first optical fiber (ref. # 21 in FIG. 3) has a non-linear constant  $\gamma$  larger than that of the second optical fiber (ref. # 22 in FIG. 3). See also, page 18, lines 10-14 of the specification. Since an influence of nonlinearity (Self Phase Modulation - SPM) can be suppressed in a negative dispersion optical fiber, a larger non-linear constant  $\gamma$  can be permitted in the first optical fiber. See specification at page 10, lines 7-13.

Claim 15, as amended, requires that the first optical fiber have the following characteristics: (i) a negative chromatic dispersion; (ii) an absolute value of a dispersion slope of not larger than 0.03 ps/nm<sup>2</sup>/km; and (iii) a non-linear constant  $\gamma$  larger than that of the second optical fiber.

Terahara teaches that the first, second and third optical fibers have first, second and third characteristic values, respectively. See Terahara at abstract and Claim 1. Terahara teaches that the second characteristic value is larger than the first characteristic value and the third characteristic value. Moreover, Terahara teaches that the characteristic value of a respective optical fiber is a nonlinear refractive index of the optical fiber divided by an effective cross section of the optical fiber. Although Terahara assumes either positive or negative dispersion optical fiber can be a first optical transmission line 102-L1 and second optical transmission line 102-L2 (col. 12, lines 48-53), the first optical transmission line 102-L1 has a non-linear constant

$\gamma$  smaller than that of a second optical transmission line 102-L2. Thus, Terahara fails to disclose or suggest a first optical fiber having a non-linear constant  $\gamma$  larger than that of the second optical fiber, as required in claim 15.

The above argued differences between the claimed subject matter and Terahara undermines the factual determination that Terahara discloses a system identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 U.S.P.Q. 86 (Fed. Cir. 1986). Applicant, therefore, submits that the imposed rejection of claims 15, 17 and 18 under 35 U.S.C. § 102 for lack of novelty as evidenced by Terahara is not factually viable and, hence, solicit withdrawal thereof.

With respect to Tanaka, the non-linear constants  $\gamma$  of positive and negative portions of an optical fiber (disclosed in Fig. 19) can be estimated with effective areas of the respective portions, because both portions have been produced from a single optical fiber preform. In Fig. 19, only negative dispersion portions in samples 3 and 5 have a smaller effective area (corresponding to large non-linear constants  $\gamma$ ) and, arguably, satisfy the condition that the first optical fiber has a non-linear constant  $\gamma$  larger than that of the second optical fiber. However, contrary to the Examiner's assertion, Applicant submits that these negative dispersion portions of samples 3 and 5 do not have an absolute value of a dispersion slope of not larger than 0.03 ps/nm<sup>2</sup>/km, as required in claim 15.

Therefore, the above argued differences between the claimed subject matter and Tanaka undermines the factual determination that Tanaka discloses a system identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, *supra*; *Kloster Speedsteel AB v. Crucible Inc.*, *supra*. Applicant, therefore, submits that the

imposed rejection of claims 15-17 under 35 U.S.C. § 102 for lack of novelty as evidenced by Terahara is not factually viable and, hence, solicit withdrawal thereof.

Dependent claim 18 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka. Applicant traverses.

Applicant incorporates herein the arguments previously advanced in traversal of the rejection of claims 15-17 under 35 U.S.C. § 102 predicated upon Tanaka. Dependent claim 18 is free from the applied art in view of its dependency from independent claim 15. Accordingly, reconsideration and withdrawal of the rejection are solicited.

With respect to the Examiner's comment beginning on page 5 of the Office action, Applicant is aware of its obligations under 37 C.F.R. § 1.56. However, it is not apparent why any comment by Applicant regarding common ownership of the present claims is required. The Examiner is hereby requested to clarify the statement and explain how it applies to the exigencies of this case.

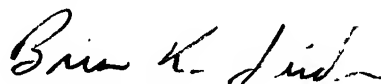
It is believed that pending claims 15-18 are now in condition for allowance. Applicant therefore respectfully requests an early and favorable reconsideration and allowance of this application. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, the Examiner is invited to call Applicant's representative at the telephone number shown below.

**Application No.: 10/829,454**

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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